

	Low M/P bath	Pure Sn bath	Sn/Ag bath	Sn/Cu bath	Sn/Bi bath	Sn/Pb bath
(Sn:X) ratio	100:0	100:0	96:04	99:01	95:05	90:10
melting point (°C)	212°C	232°C	221°C	227°C	210°C	215°C
solderability	excellent	fare	good	fare	fare	execellent
anode	Sn	Sn	Sn	Sn or Sn-Cu	Sn	Sn-Pb
whisker restraint	no	yes	no	no	no	no
plated composition	100:0	100:0	≤100:0	≤100:0	≤100:0	90:10
actual M/P (°C)	212°C	232°C	232°C	232°C	232°C	215°C
bath stability	excellent	execellent	poor	poor	poor	good
toxicity	no	no	no	no	no	Current status
melt appearance	bright	no change	no change	no change	no change	bright

FIG. 1

item	description of process applied	Sn/Pb ratio	melting point	melt appearance	remark
1	ordinary process	85/15	212°C	bright	
2	ordinary process	99/1	228°C	non-shiny	
3	ordinary process	100/0	232°C	non-shiny	
4	low-melting-point process	85/15	183°C	bright	
5	low-melting-point process	99/1	205°C	bright	
6	low-melting-point process	100/0	212°C	bright	

FIG. 2

**FIG. 3**

item	suitable process	suitable equipment
1	barrel plating (Sn,solder)	all types of barrel plater (Sn,solder)
2	rack plating (Sn,solder)	all types of rack plater (Sn,solder)
3	PCB plating (Sn,solder)	all types of PCB plater (Sn,solder)
4	strip-to-strip plating (Sn,solder)	all types of strip-to-strip plater(Sn,solder)
5	reel-to-reel plating (Sn,solder)	all types of reel-to-reel (Sn,solder)